

REMARKS

The present Amendment amends claims 1, 5, 7, 9, and 10, leaves claims 2 and 7 unchanged, and adds claim 11. Therefore, the present application has pending claims 1, 2, 5-7 and 9-11.

Interview Summary #1

Applicants thank the Examiner for granting the interview conducted on July 9, 2007. In the interview, arguments were presented to overcome the cited references, particularly Enomoto and Yee. The arguments that were presented reiterated the amendments and remarks provided in the Amendment filed on June 29, 2007. The Examiner and Applicants' representative did not come to an agreement regarding the arguments presented during the interview.

Interview Summary #2

Applicants thank the Examiner for granting the interview conducted on February 8, 2008. In the interview, arguments were presented to overcome the cited references, particularly Enomoto and Yee. The Examiner and Applicants' representative did not come to an agreement regarding the arguments presented during the interview.

Interview Summary #3

Applicants thank the Examiner for granting the interview conducted on May 9, 2008. In the interview, arguments were presented to overcome the cited references, particularly Enomoto and Yee. Specifically, Applicants' representative argued that neither Enomoto nor Yee teaches railway vehicles constituting a railway train, as recited in claim 7, and that the ring bus

configuration of Enomoto is different from the configuration of the present invention.

The Examiner agreed to further consider the arguments presented in the interview. The Examiner also recommended amending the claims to reflect the language used in Fig. 5 and the accompanying text. Accordingly, Applicants' representative agreed to add a new claim to incorporate those features. In this response, Applicants have reiterated the arguments made during the interview, and have added a new claim directed to the subject matter of Fig. 5.

35 U.S.C. §103 Rejections

Claims 1, 2, 5-7, 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent Publication No. 2003/0076781 to Enomoto et al. ("Enomoto") in view of *Efficient Data Allocation over Multiple Channels as Broadcast Servers* to Yee et al. ("Yee"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as now more clearly recited in claims 1, 2, 5-7, 9, and 10, are not taught or suggested by Enomoto or Yee, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, amendments were made to the claims to more clearly recite that the present invention is directed to an information transmission system and method as recited, for example, in independent claims 1, 7 and 10.

The present invention, as recited in claim 1, and as similarly recited in claims 7 and 10, provides an information transmission system. With regard to claim 7, the information processing system is for railway vehicles.

The information processing system, as recited in claim 1, and as similarly recited in claims 7 and 10, includes a first transmission line, a second transmission line, and a plurality of transmission terminals that are connected to both the first transmission line and the second transmission line. According to claim 7, the first transmission line and the second transmission line connect a plurality of vehicles that constitute a railway train.

According to the present invention, each of the transmission terminals includes a relaying means, and receives information from a sender via one or both of the first transmission line and the second transmission line.

Also according to the present invention, each of the transmission terminals determines whether a failure has occurred on either the first transmission line or the second transmission line by checking whether the information is being transferred on the first transmission line and is not being transferred on the second transmission line.

Furthermore, according to the present invention, a determination that the information is being transferred on the first transmission line and is not being transferred on the second transmission line indicates a failure has occurred on the second transmission line.

Further, according to the present invention, when no failure occurs on the first transmission line and no failure occurs on the second transmission line, the relaying means of the transmission terminals do not relay the information and each of the transmission terminals receives the information

from the sender via both the first transmission line and the second transmission line.

Yet even further, according to the present invention, when a failure occurs on the first transmission line, such that a first transmission terminal determines that the information is being transferred on the first transmission line and is not being transferred on the second transmission line, the first transmission terminal receives the information from the sender via the first transmission line, and the relaying means transfers the received information to the second transmission line such that the information is present on both the first transmission line and the second transmission line at the first terminal. The prior art does not teach or suggest all of these features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record. Specifically, the features are not taught or suggested by either Enomoto or Yee, whether taken individually or in combination with each other.

Enomoto teaches a system for controlling congestion on a network. However, there is no teaching or suggestion in Enomoto of the information transmission system and method as recited in claims 1, 7 and 9 of the present invention.

In the Enomoto congestion control system for congestion controlling communications on a network, a congestion control node has a congestion detection part for detecting a congestion level of the communications in the congestion control node in question and a congestion notifying part for notifying other congestion control nodes on the network of congestion

information detected by the congestion detection part. The congestion control node further has a part for receiving the congestion information from the other congestion control nodes and a congestion flow estimating part for estimating, with reference to the congestion information and a routing table for designating a transfer path to destination. The Enomoto system is implemented in a ring-shaped network.

One feature of the present invention, as recited in claim 1, and as similarly recited in claims 7 and 10, includes where when no failure occurs on the first transmission line and no failure occurs on the second transmission line, the relaying means of the transmission terminals do not relay the information to the first transmission line or the second transmission line, and each of the transmission terminals receives the information from the sender via both the first transmission line and the second transmission line. Enomoto does not disclose this feature.

Enomoto discloses a ring-shaped network. As described in paragraph [0104], lines 7-11, the ring-shaped network transfers frames sent from one of the first through the fourth congestion control nodes A1 to A4 to a different one of the first through the fourth congestion control nodes A1 to A4. For example, as described in paragraph [0109], the first congestion control node A1 receives a frame from the first client group C1 through the two-way link L100 and transfers the frame on the ring-shaped network R1 via the second one-way link L102 or the fourth one-way link L104. This receipt of a frame followed by a transfer of the frame occurs during normal (non-failure) operation. This is different from the present invention, where when no failure occurs on the first transmission line and no failure occurs on the second

transmission line, the relaying means of the transmission terminals do not relay the information to the second transmission line, and each of the transmission terminals receives the information from the sender via both the first transmission line and the second transmission line.

To further illustrate features of the present invention, the Examiner's attention is directed to Fig. 3 and the accompanying text on page 7, line 21 to page 10, line 25. As shown and described, when no failure occurs in the system, the terminals receive identical data from above and below, via lines 51 and 52, from the sender terminal. In this situation, the terminals merely receive data from above and below – i.e., ***the terminals do not transfer the data to a transmission line when no failure occurs.*** A terminal may transfer the data only if a failure occurs on one of the lines 51 or 52. If a failure occurs, then a terminal transfers the data received via one of the lines 51 or 52 to the other of the lines 51 or 52. Accordingly, the present invention is quite different from Enomoto.

Another feature of the present invention, as recited in claim 7, includes a first transmission line and a second transmission line which connect a plurality of vehicles constituting a railway train. Enomoto does not disclose this feature, and the Examiner has not provided any support for the assertion that Enomoto teaches this feature.

Therefore, Enomoto fails to teach or suggest “wherein when no failure occurs on the first transmission line and no failure occurs on the second transmission line, the relaying means of the transmission terminals do not relay the information to the first transmission line or the second transmission line and each of the transmission terminals receives the information from the

sender via both the first transmission line and the second transmission line”

as recited in claim 1, and as similarly recited in claims 7 and 10.

Furthermore, Enomoto fails to teach or suggest “a first transmission line and a second transmission line which connect a plurality of vehicles constituting a railway train” as recited in claim 7.

The above noted deficiencies of Enomoto are not supplied by any of the other references of record, namely Yee, whether taken individually or in combination with each other. Therefore, combining the teachings of Enomoto and Yee in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Yee teaches a method of efficiently allocating data over multiple channels at broadcast servers. However, there is no teaching or suggestion in Yee of the information transmission system and method as recited in claims 1, 7 and 9 of the present invention.

Yee discloses the use of broadcast transmission for disseminating data. As described in Yee, broadcast is used because broadcasting an item satisfies all outstanding client requests for the item. However, because the transmission medium is shared, individual requests may have high response times. Yee shows how to minimize the average response time given multiple broadcast channels by optimally partitioning data among the channels.

One feature of the present invention, as recited in claim 1, and as similarly recited in claims 7 and 10, includes where when no failure occurs on the first transmission line and no failure occurs on the second transmission line, the relaying means of the transmission terminals do not relay the

information to the first transmission line or the second transmission line, and each of the transmission terminals receives the information from the sender via both the first transmission line and the second transmission line. Yee does not disclose this feature, and the Examiner merely relies upon Yee for teaching that all transmissions are conducted over both of two transmission lines.

Another feature of the present invention, as recited in claim 7, includes a first transmission line and a second transmission line which connect a plurality of vehicles constituting a railway train. Yee does not disclose this feature, and the Examiner has not provided any support for the assertion that Yee teaches this feature.

Therefore, Yee fails to teach or suggest “wherein when no failure occurs on the first transmission line and no failure occurs on the second transmission line, the relaying means of the transmission terminals do not relay the information to the first transmission line or the second transmission line, and each of the transmission terminals receives the information from the sender via both the first transmission line and the second transmission line” as recited in claim 1, and as similarly recited in claims 7 and 10.

Furthermore, Yee fails to teach or suggest “a first transmission line and a second transmission line which connect a plurality of vehicles constituting a railway train” as recited in claim 7.

Both Enomoto and Yee suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Enomoto and Yee in the manner suggested by the Examiner does not render obvious the features of the present invention as

now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 1, 2, 5-7, 9, and 10 as being unpatentable over Enomoto in view of Yee are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1, 2, 5-7, 9, and 10.

New Claim 11

Claim 11 was added to more clearly describe features of the present invention. More specifically, claim 11 is directed to a transmission terminal having the features as shown in Fig. 5, and as described in the accompanying text. These features were added at the recommendation of the Examiner, and Applicants submit that neither Enomoto nor Yee teaches or suggests the features of claim 11.

In view of the foregoing amendments and remarks, Applicants submit that pending claims 1, 2, 5-7 and 9-11 are in condition for allowance. Accordingly, early allowance of these claims is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (referencing Attorney Docket No. 520.43271X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

A handwritten signature in cursive script, appearing to read "Donna K. Mason", written over a horizontal line.

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